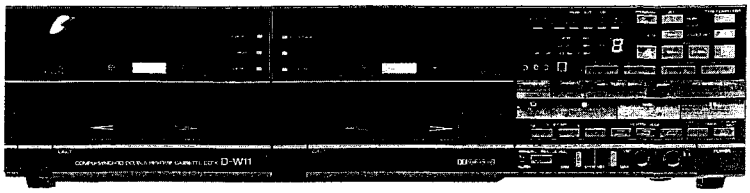
SANSUI

SERVICE MANUAL

D-W11

COMPU-SYNCHRO
)OUBLE REVERSE CASSETTE DECK



CAUTION

1. Parts identified by the ⚠ symbol on the schematic diagram and the parts list are critical for safety. Use only replacement parts that have critical characteristics recommended by the manufacturer.
2. Make leakage-current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

•SPECIFICATIONS

Track format ..... 4-track/2-channel system
Tape speed ..... 4.8 cm/sec.
Heads
Rec/play head ..... HIGH-Bs hard permalloy × 2
Erase head ..... Double-gap HIGH-Bs ferrite × 2
Motor ..... Electronically controlled DC motor × 2
Reels: DC Motor × 2
Wow/flutter ..... 0.05% max (WRMS)
Fast forwarding (rewinding) time
..... Approx. 85 sec. (for C-60 tape)
Frequency response (−20 VU recording/playback)
Normal tape (LH) ..... 20 to 15,000 Hz
(30 to 14,000 Hz ±3 dB)
Chrome tape ..... 20 to 17,000 Hz
(30 to 16,000 Hz ±3 dB)
Metal tape ..... 20 to 18,000 Hz
(30 to 17,000 Hz ±3 dB)
Signal to noise ratio (Record/Playback)
Metal Tape (without Dolby Noise Reduction)
..... better than 57 dB
(With Dolby Noise Reduction Effect)
DOLBY "B" NR .... better than 66 dB
(above 5 kHz)
DOLBY "C" NR .... better than 73 dB
(above 1 kHz)
Erasure factor (Metal Tape)
..... more than 70 dB at 1 kHz
Recording bias frequency
..... 85 kHz
Input sensitivity/impedance
LINE IN (REC) ..... 150 mV/47 kohms (AUTO)
70 mV/47 kohms (MANUAL)
MIC ..... 0.5 mV/10 kohms
Power requirements ..... 120/220/240 V
50/60 Hz
For U.S.A. and Canada
..... 120V (60 Hz)
Power consumption 35W
Dimensions ..... 430 mm (16-15/16") W
111 mm (4-3/8") H
304 mm (12") D
Weight ..... 6.2 kg (13.7 lbs) net
7.6 kg (16.8 lbs) packed

- Design and specifications subject to changes without notice for improvements.
- Dolby noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby" and the double D symbol are trade marks of Dolby Laboratories Licensing Corporation.

NOTE

. The symbols, UL, CSA, SA, BS, UK, EU, AS, SEV, SS and XX <EXPORT> on the parts list and the schematic diagram mean followings respectively.

UL..... Manufactured for U.S.A market. (Underwriters Laboratories approved model.)
CSA ..... Manufactured for Canadian market.
SA..... Manufactured for South African market.
BS, UK..... Manufactured for United Kingdom market.
•EU..... Manufactured for European market.
AS..... Manufactured for Australian market.
SEV..... Manufactured for Swiss market.
SS..... Manufactured for Saudi Arabia market.
XX <EXPORT> .. Standard Version.
NON MARK..... Common Parts.

. Some printed circuit boards are not supplied assembled. To separate these in this service manual, the stock numbers are not indicated for these boards. However, stock numbers for individual parts are indicated.

. Since some capacitors and resistors are omitted from parts lists in this service manual, refer to the Common Parts List for capacitors and resistors, which was issued on June 1987.

. Abbreviations in this service manual are as follows.

•Abbreviations List

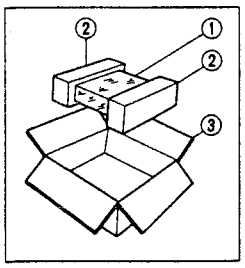
C.R.	: Carbon Resistor
S.R.	: Solid Resistor
Ce.R.	: Cement Resistor
M.R.	: Metal Film Resistor
F.R.	: Fusing Resistor
N.I.R.	: Non-Inflammable Resistor
A.R.	: Array Resistor
C.C.	: Ceramic Capacitor
C.T.	: Ceramic Capacitor, Temperature Compensation
E.C.	: Electrolytic Capacitor
E.L.	: Low Leak Electrolytic Capacitor
E.B.	: Bi-Polar Electrolytic Capacitor
E.B.L.	: Low Leak Bi-Polar Electrolytic Capacitor
Ta.C.	: Tantalum Capacitor
F.C.	: Film Capacitor
M.P.	: Metalized Paper Capacitor
P.C.	: Polystyrene Capacitor
G.C.	: Gimmic Capacitor
A.C.	: Array Capacitor
V.R.	: Variable Resistor
S.V.R.	: Semi Variable Resistor
SW.	: Switch
Chip R.	: Chip Resistor
Chip C.	: Chip Capacitor

Note

* For block diagrams, discription of ICs, operation of mechanism and main parts replacement, please refer to the D-W10 Service Manual previously issued.

1. PACKING LIST

Parts No.	Stock No.	Description
1	47859100	Vinyl Bag
2	47673600	Styrofoam Packing
3	27482800	Carton Case



2. ACCESSORY LIST

	Stock No.	Description
	07193400	PJP Cord
or	38103300	PJP Cord
	49033000	Operating Instruction (*E•F•S)
	49033100	Operating Instruction (*G•I•Sw)

***Note**
E•F•S: English•French and Spanish Version
G•I•Sw: German•Italian and Swedish Version

3. ADJUSTMENTS

3-1. Tape Speed Adjustment

• Adjust the tape speed of B-side as fast as A-side.

Note: 1. Use Sansui Test Tape, SCT-S3K.
(3 kHz signals are recorded on the tape).
2. Connections are shown in Fig. 3-1.

Fig. 3-1

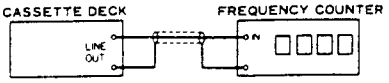
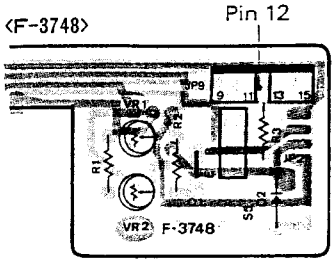


Fig. 3-2 <F-3748>



1) Tape Speed Adjustment (NORMAL SPEED)

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	A Side Mecha. (NORMAL)	LINE OUT Frequency counter	Playback the TEST TAPE SCT-S3K. A Side Mecha.	Turn semi-variable resistor (tVR1) of A Side Mecha. as Fig. 3-2.	3000Hz ± 30Hz	Use small screw driver.
2.	B Side Mecha. (NORMAL)		Playback the TEST TAPE SCT-S3K. B Side Mecha.	Turn semi-variable resistor (tVR1) of B Side Mecha. as Fig. 3-2.	3000Hz ± 30Hz	

2) Tape Speed Adjustment (HIGH SPEED)

Note: 1. Before this adjustment, regulate "3-1. Tape Speed Adjustment (NORMAL SPEED)".
2. Short between Pin No.12 (R3) on the F-3748 and GND. (See Fig. 3-2)

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	A Side Mecha. (HIGH)	LINE OUT Frequency counter	Playback the TEST TAPE SCT-S3K. A Side Mecha.	Turn semi-variable resistor (tVR2) of A Side Mecha. as Fig. 3-2.	6000Hz ± 60Hz	Use small screw driver.
2.	B Side Mecha. (HIGH)		Playback the TEST TAPE SCT-S3K. B Side Mecha.	Turn semi-variable resistor (tVR2) of B Side Mecha. as Fig. 3-2.	6000Hz ± 60Hz	

3-2. Playback Adjustment

Note: 1. Before this adjustment, clean REC/P.B. head surface.
2. For this adjustment, use Sansui Test Tape, SCT-F10K, and SCT-L400.
3. Set the Dolby NR switch to be OFF.
4. Connections are shown in Fig. 3-3.

Fig. 3-3

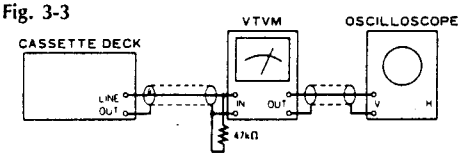
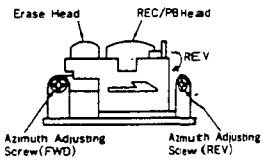


Fig. 3-4



1) A-Side Mecha. Adjustment

Note: Push A-button.

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	REC/P.B. Head Adj.	LINE OUT VTVM and Scope	Playback the TEST TAPE SCT-F10K	Adjust the azimuth adjusting screw in Fig. 3-4.	MAX. Output both channels on FWD and REV PLAY	After this adjustment, lock the screw with paint.
2.	Playback Level Pre Adj.	Between across vR1 (L-CH and R-CH, F-4670) VTVM and Scope	Playback the TEST TAPE SCT-L400	Adjust each vVR101 (L-CH and R-CH, F-4678)	10mV ± 2dB	See Top View on Page 12.
3.	Playback Level Adj.	LINE OUT VTVM and Scope	Playback the TEST TAPE SCT-L400	Adjust each vVR2 (L-CH and R-ch, F-4670)	420mV ± 2dB	See Top View on Page 12.

2) B-Side Mecha. Adjustment

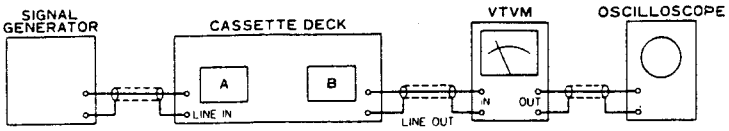
Note: Push B-button.

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	REC/P.B. Head Adj.	LINE OUT VTVM and Scope	Playback the TEST TAPE SCT-F10K	Adjust the azimuth adjusting screw in Fig. 3-4.	MAX. Output both channels on FWD and REV PLAY	After this adjustment, lock the screw with paint.
2.	Playback Level Adj.	LINE OUT VTVM and Scope	Playback the TEST TAPE SCT-L400	Adjust each vVR101 (L-CH and R-CH, F-4678)	420mV ± 2dB	See Top View on Page 12.

3-3. REC Level & Frequency Response Adjustment

Note: 1. Connections are shown in Fig. 3-5.
2. Set the Dolby NR switch to be OFF.

Fig. 3-5



1) A-Side Mecha. Adjustment

Note: Push A-button.

STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1kHz, 50mV from S.G. into LINE IN.	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1.Push REC button. 2.Playback the 1kHz signal.	Adjust vVR202 (L-CH and R-CH, F-4679) until playback level of the A side Mecha. and output signal level on recording operation will be equal.	See Top View on Page 12.
2.	Frequency Response Adj.	Feed 1kHz 15mV and 10kHz 15mV from S.G. into LINE IN	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1.Record the 1kHz and 10kHz signals from S.G. 2.Playback the 1kHz and 10kHz signals, then confirm 10kHz signal level in less than 1kHz signal level ±2dB on VTVM.	1.If not, adjust vVR203 (L-CH and R-CH, F-4679) slightly until the 10kHz signal level in less than 1kHz signal level ±2dB on VTVM.	See Top View on Page 12.
3.	Metal REC Level Adj.	Feed 1kHz, 50mV from S.G. into LINE IN	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-MA. 1.Push REC button. 2.Playback the 1kHz signal.	Adjust vVR201 (L-CH and R-CH, F-4679) until playback level of the A side Mecha. and output signal level on recording operation will be equal.	See Top View on Page 12.

2) B-Side Mecha. Adjustment

Note: Push B-button.

STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1kHz, 50mV from S.G. into LINE IN.	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1.Push REC button. 2.Playback the 1kHz signal.	Adjust vVR202 (L-CH and R-CH, F-4679) until playback level of the B side Mecha. and output signal level on recording operation will be equal.	See Top View on Page 12.
2.	Frequency Response Adj.	Feed 1kHz 15mV and 10kHz 15mV from S.G. into LINE IN	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1.Record the 1kHz and 10kHz signals from S.G. 2.Playback the 1kHz and 10kHz signals, then confirm 10kHz signal level in less than 1kHz signal level ±2dB on VTVM.	1.If not, adjust vVR203 (L-CH and R-CH, F-4679) slightly until the 10kHz signal level in less than 1kHz signal level ±2dB on VTVM.	See Top View on Page 12.
3.	Metal REC Level Adj.	Feed 1kHz, 50mV from S.G. into LINE IN	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-MA. 1.Push REC button. 2.Playback the 1kHz signal.	Adjust vVR201 (L-CH and R-CH, F-4679) until playback level of the B side Mecha. and output signal level on recording operation will be equal.	See Top View on Page 12.

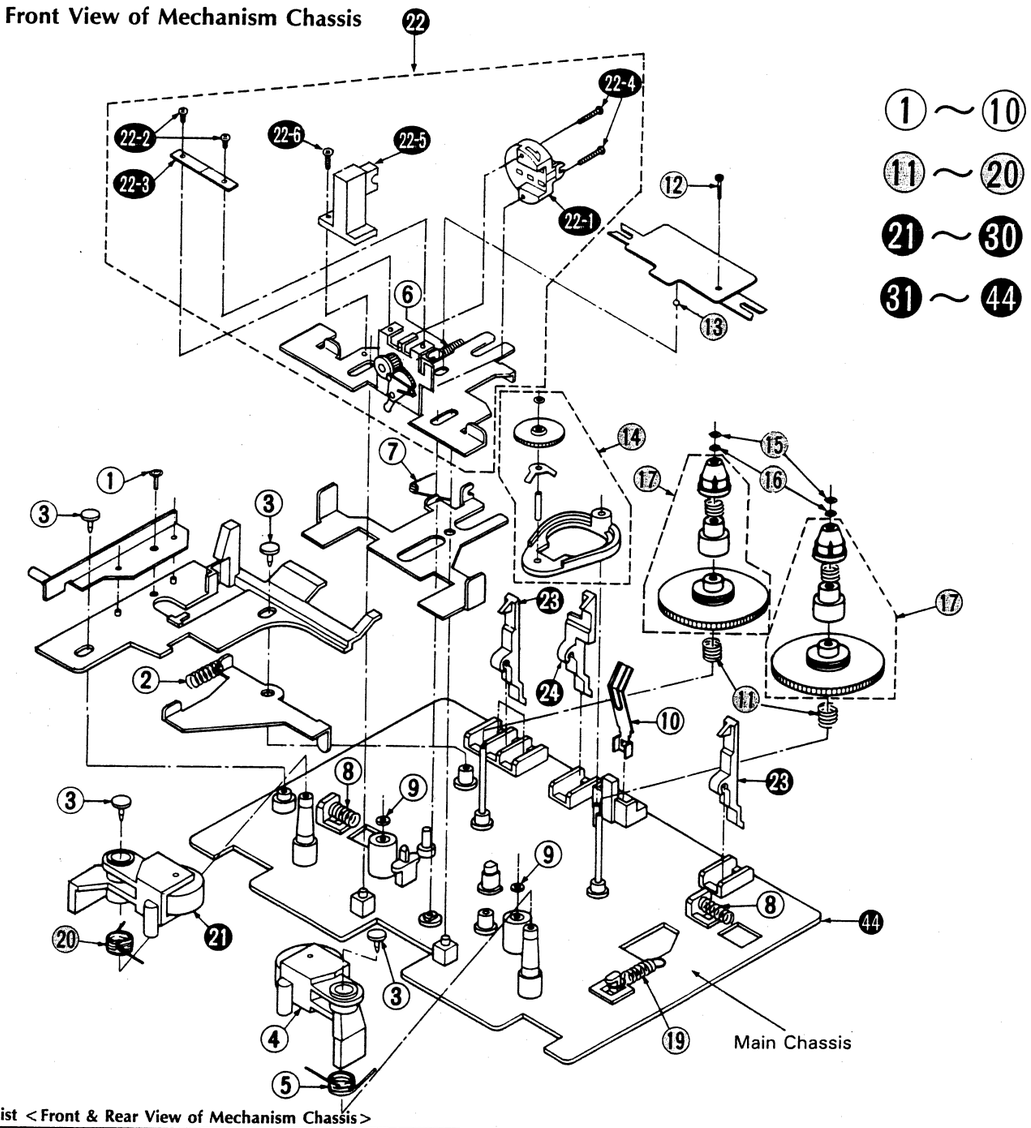
◆ List of Sansui Test Tape

Name of TEST TAPE	Recorded Frequency	Description	Equivalent To
SCT-F40	40 Hz	Playback Frequency Response Check	—
SCT-F1K	1 kHz	High Frequency Equialization Check	—
SCT-F10K	10 kHz	REC/PB Head Adjustment	—
SCT-L400N	400 Hz	Playback Level and Indicator Level Adjustment	—
SCT-S3K	3 kHz	Speed Check and Wow & Flutter Check	—
*SCT-AD (NORMAL)	—	Recording Bias Adjustment	TDK AD
*SCT-SA (HIGH)	—	REC/PB Level Adjustment	TDK SA
*SCT-MA (METAL)	—	Frequency Response Check	TDK MA

•**Note:** Some reference tapes marked * are not supplied.
As these are equivalent to ones indicated above, please obtain these blank tapes on your side as possible.

4. EXPLODED VIEW OF MECHANISM ASS'Y AND PARTS LIST

4-1. Front View of Mechanism Chassis

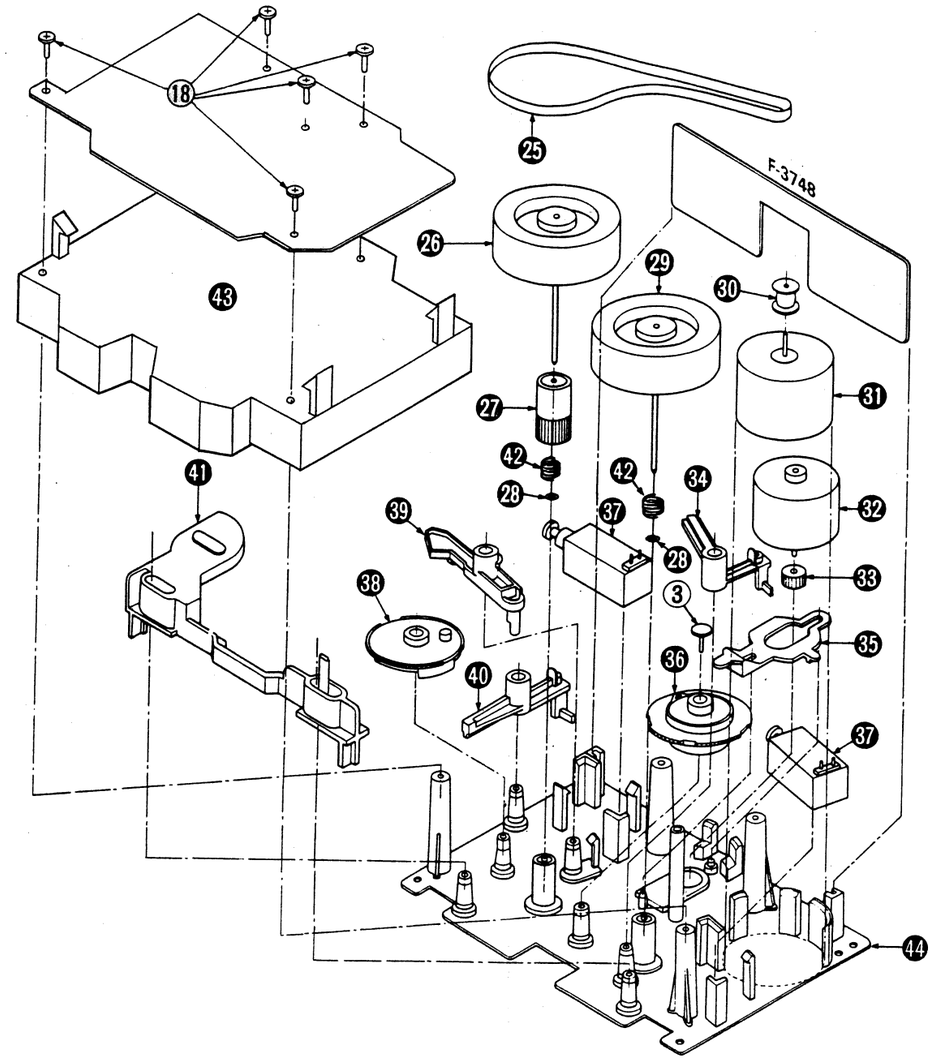


Parts List <Front & Rear View of Mechanism Chassis>

Parts No.	Stock No.	Description
1	46267800	Tapping Screw, M3.0x8
2	47644500	Spring, eject
3	47420900	Plastic Tack
4	47901500	Pinch Roller (R) Ass'y
5	27527100	Spring, pinch roller (R) ass'y
6	47406200	Spring, head base
7	47405600	Spring, Slide base
8	47668600	Spring, plunger solenoide
9	47404700	Nylon Washer, d=2.5
10	47293510	Spring, half
11	47709620	Spring, reel
12	18139300	Binding Head Screw, M2x12
13	47404900	Steel Ball, ϕ=2.0

Parts No.	Stock No.	Description
14	47405000	Arm Ass'y
15	27083100	Washer, d=1.6
16	47404600	Washer, d=2.0
17	47835510	Reel Gear Ass'y
18	46268100	Screw, M3x10
19	47406300	Spring, push arm
20	27527000	Spring, pinch roller (L) ass'y
21	47281910	Pinch Roller (L) Ass'y
22	16610301	REC/PB Head Ass'y with sensor
22-1	46858000	REC/P.B/Erase Head
22-2	47835100	Screw, M2.0x5
22-3	47289200	Spring Plate, azimuth
22-4	46731300	Screw, M1.4x6

4-2. Rear View of Mechanism Chassis



Parts List <Front & Rear View of Mechanism Chassis>

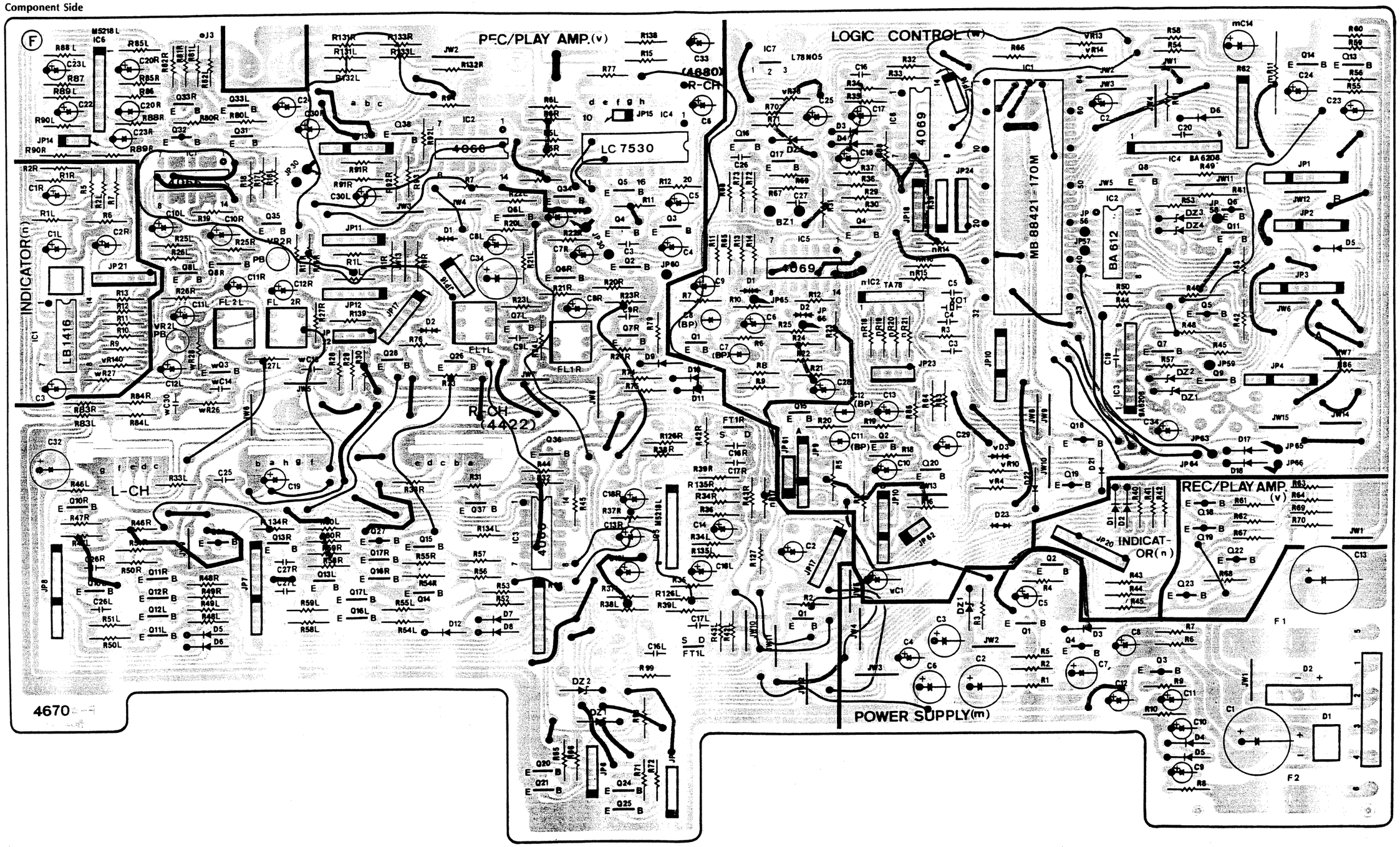
Parts No.	Stock No.	Description
22-5	37031900	Photo Sensor Ass'y (with Photo Coupler, GP2L02)
22-6	46398800	Screw, M2.0x6
23	47723020	Sensor Arm A2
24	47292530	Sensor Arm B
25	47405200	Capstan Belt
26	27218900	Flywheel (R) Ass'y
27	47281210	Gear, flywheel ass'y
28	47404600	Washer, d=2.5
29	47283010	Flywheel (L) Ass'y
30	27070700	Pulley
31	48122810	Capstan Moter SHV2R
32	46737500	Reel Motor

Parts No.	Stock No.	Description
33	47293110	Gear, reel motor
34	47903310	Lock Arm (A)
35	47293810	Arm (B)
36	47283840	Asist Gear (A)
37	47292610	Plunger Solenoide
38	47283910	Assist Gear (B)
39	47283710	Push Arm
40	47281710	Lock Arm (B)
41	47284200	FWD-REV Change Plate
42	47530000	Spring A, Flywheel
43	47292830	Sub Chassis
44	47292530	Main Chassis

5. PARTS LOCATION ON BOARD

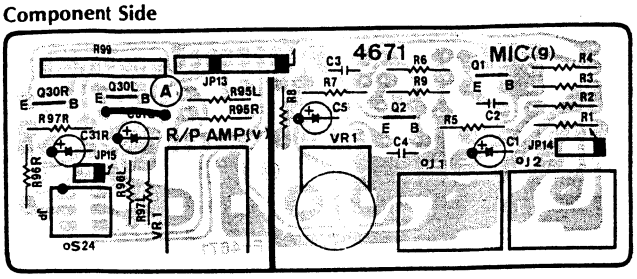
5-1. F-4670 Main Board

Component Side



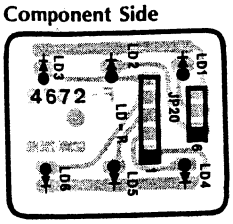
5-2. F-4671 Mic Amp. Board

Component Side



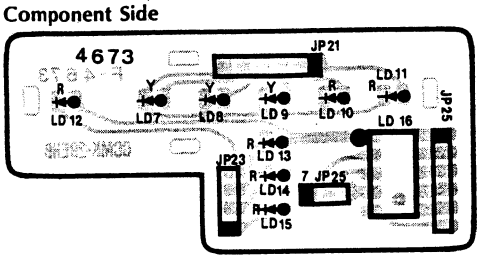
5-3. F-4672 AUTO TAPE SELECTOR Indicators Board

Component Side



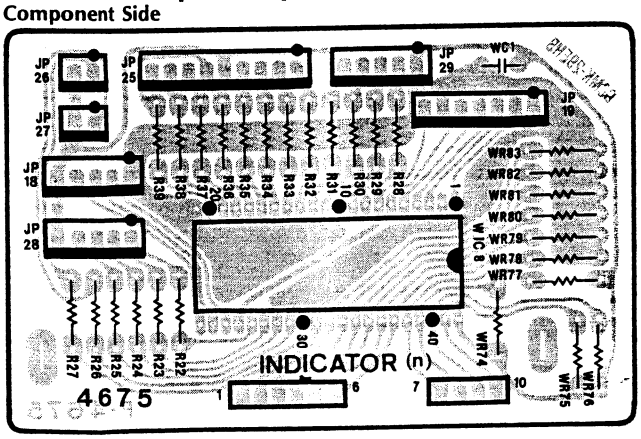
5-4. F-4673 PEAK LEVEL Indicator Board

Component Side



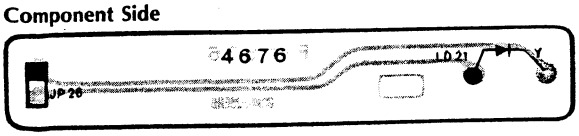
5-5. F-4675 Input/Output Control Board

Component Side



5-6. F-4676 B-Half Indicator Board

Component Side

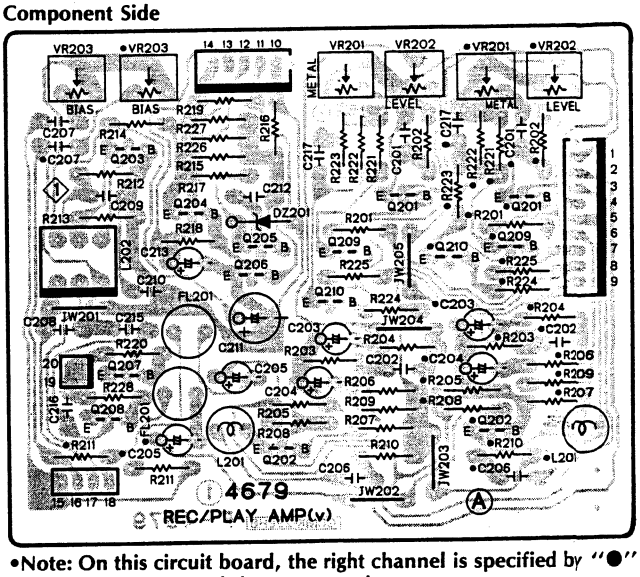


5-7. F-4677 A-Half Indicator Board

Component Side

5-8. F-4679 Recording Amp. Board

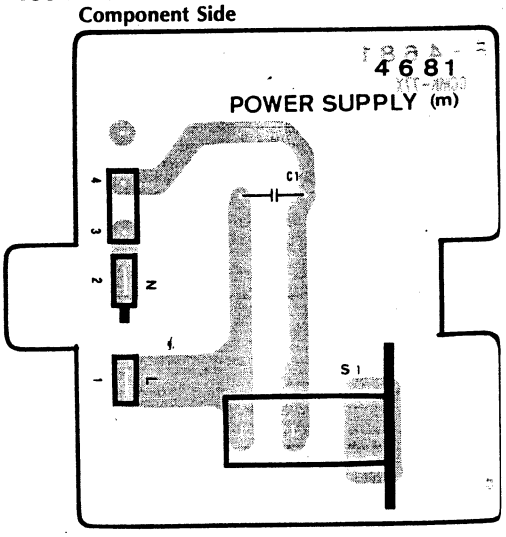
Component Side



•Note: On this circuit board, the right channel is specified by "●" mark on top of the parts number.

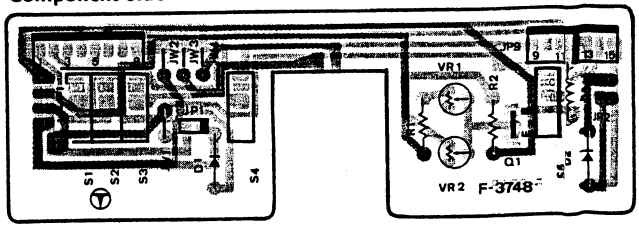
5-9. F-4681 Power Switch Board

Component Side



5-10. F-3748 Half and Prevention Tab Sensor Board

Component Side



<F-4670>

Parts No.	Stock No.	Description
vQ28	46719900	DTC124
vQ29	46719800	DTA124
vQ31	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
vQ32	46719800	DTA124
vQ33~36	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
vQ37	46719900	DTC124
vQ38	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
•FET		
vFT1	46643800	2SJ103-Y
	or 46643801	2SJ103-GR
•IC		
vIC1	46421000	UPD4066BC
	or 48054500	MSM4066BRS
	or 48063800	BU4066B
vIC2	46421000	UPD4066BC
	or 48054500	MSM4066BRS
	or 48063800	BU4066B
vIC3	46421000	UPD4066BC
	or 48054500	MSM4066BRS
	or 48063800	BU4066B
vIC4	46671600	LC7530
vIC5, 6	46078900	M5218L
•Diode		
vD1~3	46464000	MC921
vD5~12	03117600	1S2473T77
	or 46086000	1S1588
•Zener Diode		
vDZ1, 2	46111100	05Z5.1-X
	or 46111200	05Z5.1-Y
vR98	46346800	100kΩ×6 1/8W A.R.
vFL1	46177501	Dolby Filter
vFL2	46935500	Low Pass Filter (85kHz)
vVR2	46839300	1kΩ S.V.R., P.B. Level Adj.
•Transistor		
wQ1, 2	46719900	DTC124ES
wQ3, 4	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
wQ5, 6	46359701	2SA952
	or 46614001	2SA1283
	or 48000801	2SA934
wQ7, 8	46614101	2SC3243
wQ9~17	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
wQ19	46923300	DTA124ES
wQ20	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
•IC		
wIC1	48198900	MB88421-170M
wIC2	46397500	BA612
wIC3, 4	46149600	BA6208
wIC5	46427000	UPD4069UBC
	or 48050700	MSM4069UBRS
	or 48063900	BU4069UB
	or 48156500	HD14069UBP
wIC6	46427000	UPD4069UBC
	or 48050700	MSM4069UBRS
	or 48063900	BU4969UB
	or 48156500	HD14069UBP
wIC7	46359400	L78N05
wXO1	46505500	Ceramic Element KBR-3.58M
•Diode		
wD1, 2	46464000	MC921
wD3~6	03117600	1S2473T77
	or 46086000	1S1588
•Zener Diode		
wDZ1	46111100	05Z5.1-X
wDZ2, 3	46111900	05Z6.2-Z
	or 46112000	05Z6.8-X
wDZ4	46111100	05Z5.1-X
wDZ5	46113000	05Z9.1-Y
	or 46113100	05Z9.1-Z
⚠wR11	00192400	8.2Ω 2W N.I.R.
wR39	46341500	4.7kΩ×4 1/8W A.R.
⚠wR40	00184900	82Ω 1W N.I.R.
⚠wR41	00184900	82Ω 1W N.I.R.
⚠wR48	00181100	22Ω 1W N.I.R.
⚠wR49	00181100	22Ω 1W N.I.R.
wR62	46345200	4.7kΩ×6 1/8W A.R.
wC7	08451000	10μF 16V E.B.
wC8	48103600	3.3μF 50V E.B.
wC11	08451000	10μF 16V E.B.
wC12	48103600	3.3μF 50V E.B.
wBZ1	07244900	Buzzer PKM12

6-2. F-4671 Mic Amp. Board <Stock No. 00837901>

Parts No.	Stock No.	Description
•Transistor		
gQ1, 2	46577801	2SC2320L
	or 46581701	2SC1845
	or 46947401	2SC2459
gVR1	48080700	20kΩ (A) V.R., MIC
oS24	46556400	Push SW., REC LEVEL
oJ1	48109200	Jack, MIC
oJ2	46706300	Jack, PHONES
•Transistor		
vQ30	46577801	2SC2320L
	or 46581701	2SC1845
	or 46947401	2SC2459
vR99	48076000	100kΩ×4 A.R.
vVR1	48080800	20kΩ (A) V.R., REC LEVEL

6-3. F-4672 Auto Tape Selector Indicators Board

Parts No.	Stock No.	Description
•LED		
nLD1	46176900	TLS-123, METAL•b-side
nLD2	46176900	TLS-123, HIGH•b-side
nLD3	46176900	TLS-123, NOR•b-side
nLD4	46176900	TLS-123, METAL•a-side
nLD5	46176900	TLS-123, HIGH•a-side
nLD6	46176900	TLS-123, NOR•a-side

6-4. F-4673 Peak Level Indicator Board

Parts No.	Stock No.	Description
•LED		
nLD7	48841200	SEL3910A, PEAK LEVEL
nLD8	48841200	SEL3910A, PEAK LEVEL
nLD9	48841200	SEL3910A, PEAK LEVEL
nLD10	46176900	TLS-123, PEAK LEVEL
nLD11	46176900	TLS-123, PEAK LEVEL
nLD12	46176900	TLS-123, COMPU EDIT
nLD13	46176900	TLS-123, SERIES
nLD14	46176900	TLS-123, DUBBING
nLD15	46176900	TLS-123, DOUBLE DUBBING
nLD16	48069000	GL-9P03D, RMPS

6-5. F-4674 Operation Switch Board

Parts No.	Stock No.	Description
oS1	46549500	Push SW., a
oS2	46549500	Push SW., DUBBING ▷
oS3	46549500	Push SW., PROGRAM
oS4	46549500	Push SW., REC. MUTE
oS5	46549500	Push SW., INTRO SKIP
oS6	46549500	Push SW., REC
oS7	46549500	Push SW., b
oS8	46549500	Push SW., DUBBING 2× ▷
oS9	46549500	Push SW., SET
oS10	46549500	Push SW., DIRECTION
oS11	46549500	Push SW., BLANK SEARCH
oS12	46549500	Push SW., PLAY
oS13	46549500	Push SW., SERIES
oS14	46549500	Push SW., COMPU EDIT
oS15	46549500	Push SW., RCPS
oS16	46549500	Push SW., PAUSE
oS17	46549500	Push SW., AUTO FADER
oS18	46549500	Push SW., F.F
oS19	46549500	Push SW., REC ONLY a b
oS20	46549500	Push SW., TSR
oS21	46549500	Push SW., STOP
oS22	46549500	Push SW., REW
oS23	48080900	Push SW., DOLBY NR/REVERSE MODE/TIMER

6-6. F-4675 Input/Output Control Board

<Stock No. 00838301>

Parts No.	Stock No.	Description
•IC		
wIC8	48109300	MB8841H-1357K

6-7. F-4676 B-Half Indicator Board

Parts No.	Stock No.	Description
•LED		
nLD21	48157400	LD-702YY

6-8. F-4677 A-Half Indicator Board

Parts No.	Stock No.	Description
•LED		
nLD21	48157400	LD-702YY

6-9. F-4678 Playback Amp. Board

<Stock No. 00838601>

Parts No.	Stock No.	Description
•Transistor		
vQ101	46359801	2SC2001
	or 48055901	2SD1468S
vQ102, 103	46577801	2SC2320L
	or 46581701	2SC1845
vQ104	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
•Diode		
vD101	46852000	RLS-73
vJW2	46741100	Cross Conductor (Chip)
vVR101	48078600	1kΩ S.V.R., Pre P.B. Level Adj.
vS101	46133300	Push SW., Direction Sensor
vRL101	11504700	Relay
	or 11504701	Relay

6-10. F-4679 Recording Amp. Board

<Stock No. 00838701>

Parts No.	Stock No.	Description
•Transistor		
vQ201, 202	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
vQ203	46725801	2SC1627A
vQ204	46614101	2SC3243
vQ205, 206	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
vQ209, 210	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
•Zener Diode		
vDZ201	46109300	05Z3.0-X
	or 46109400	05Z3.0-Y
vC208	46657000	3900pF 100V F.C.
vR214	46680900	4.7Ω 1/4W F.R.
vFL201	42904400	Peaking Coil
vL201	48121500	Inductor 2.7mH
vL202	46362200	Bias OSC Coil
vVR201	10354100	47kΩ (B) S.V.R., Metal Rec Level Adj.
vVR202	10353900	22kΩ (B) S.V.R., Rec Level Adj.
vVR203	10354300	100kΩ (B) S.V.R., Bias Adj.

6-11. F-4680 Auto Level Control Board

<Stock No. 00838801>

Parts No.	Stock No.	Description
•Transistor		
vQ301~303	46367101	2SC2603
	or 46391901	2SC2785
	or 48058801	2SC1740S
•IC		
vIC301	46899000	LA3220
•Diode		
vD301	46852000	RLS-73

6-12. F-4681 Power Switch Board

Parts No.	Stock No.	Description
⚠pC1	46425800	0.01μF 400V C.C.
⚠pS1	46413900	Push SW., POWER (XX•UL•EU•UK•SEV)
⚠	48065200	Push SW., POWER (CSA)

6-13. F-3748 Half and Prevention Tab Sensor Board

Parts No.	Stock No.	Description
•Transistor		
tQ1	07206901	2SC2001
•Diode		
tD1	03111600	1S2473D
tD2	03111600	1S2473D
tVR1	46839400	2.2kΩ S.V.R., NORMAL SPEED
tVR2	46839500	4.7kΩ S.V.R., HIGH SPEED
tS1	47292700	Leaf SW., half sensor
tS2	47292700	Leaf SW., prevention tab sensor (for A-side)
tS3	47292700	Leaf SW., tape sel. HIGH
tS4	47292700	Leaf SW., tape sel. METAL
tS5	47292700	Leaf SW., prevention tab sensor (for B-side)

6-14. F-4422 Noise Reduction Board

<Stock No. 00775301>

Parts No.	Stock No.	Description
•IC		
xIC1	46671900	HA12058NT
xFL1	46177600	Trap Filter (19.8kHz)

6-15. F-4736 Tape Operation Indicators Board

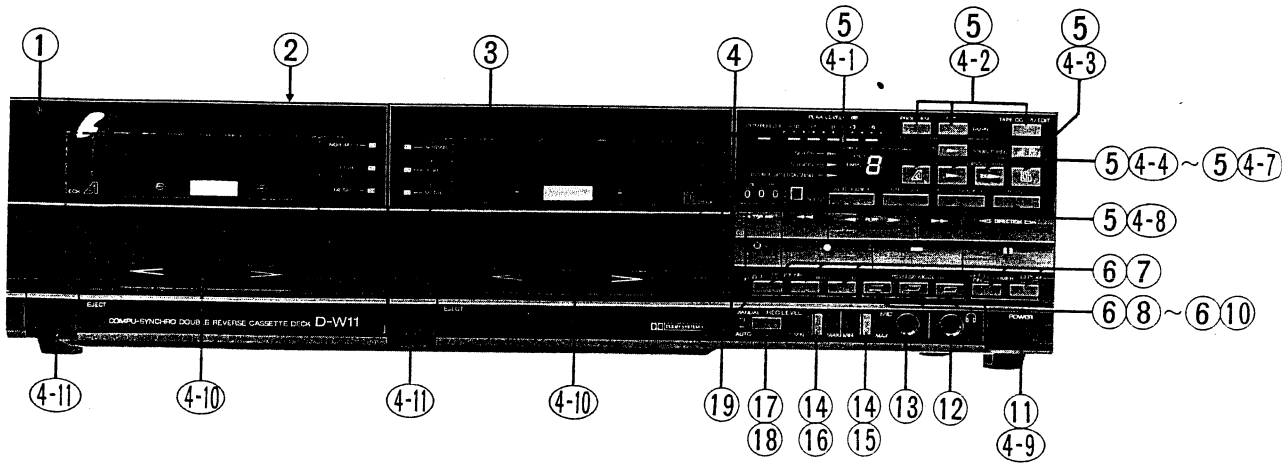
Parts No.	Stock No.	Description
•LED		
nLD17	48069100	LD-6021MT, < (direction)
nLD18	48069100	LD-6021MT, > (direction)
nLD19	48120400	LD-6021YT, II (pause)
nLD20	48120300	LD-6021VT, ○ (rec)

6-16. F-5029 Sub Logic Control Board

Parts No.	Stock No.	Description
•Diode		
vD13~16	03117600	1S2473
	or 46086000	1S1588
•Transistor		
wQ21, 22	46367001	2SA1115
	or 46392001	2SA1175
	or 48058601	2SA933S

7. OTHER PARTS

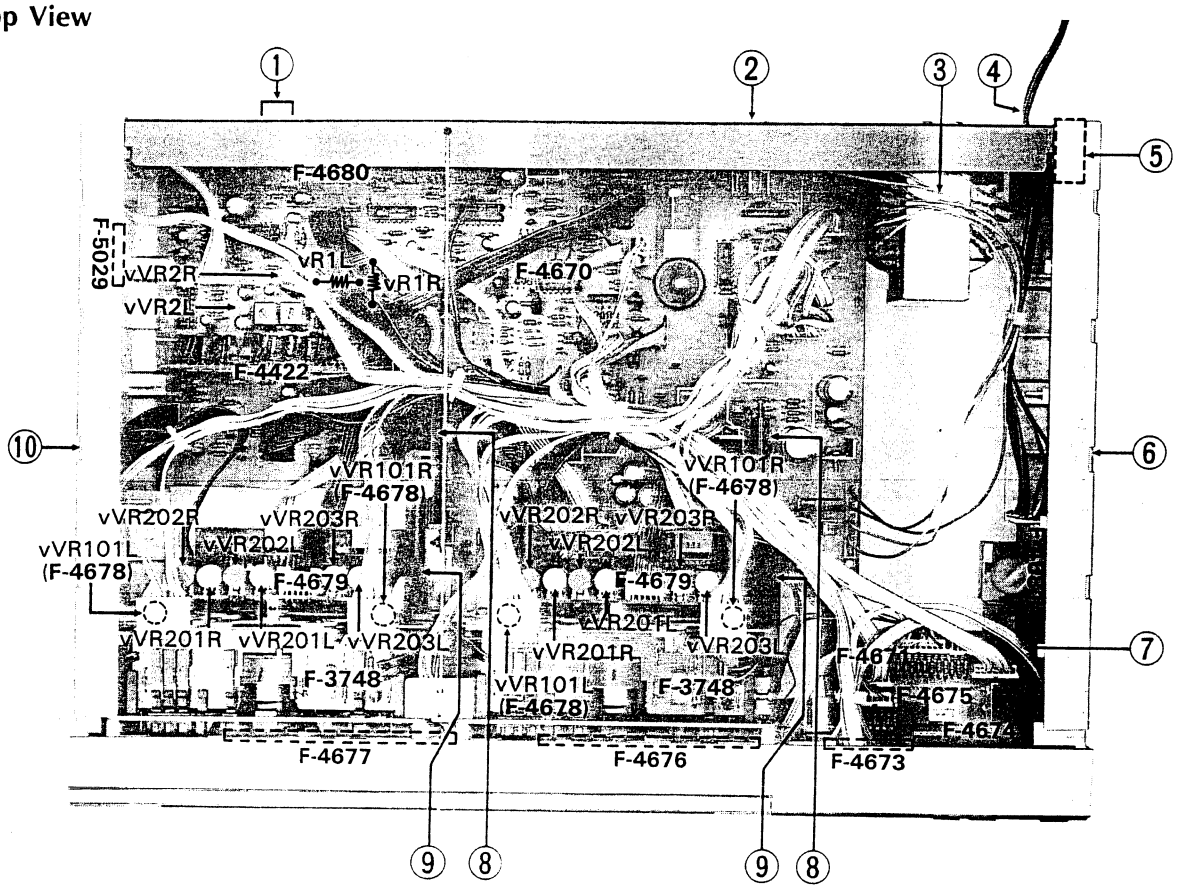
7-1. Front View



Parts List <Front View>

Parts No.	Stock No.	Description
1	27482900	Lid A Ass'y
2	27483100	Bonnet
3	27483000	Lid B Ass'y
4	27483200	Front Panel Ass'y
4-1	47677900	Knob, SERIES
4-2	47715800	Knob, PROGRAM•SET•TAPE COMPU EDIT
4-3	27484900	Knob, DOUBLE REC
4-4	27485000	Knob, A
4-5	47677400	Knob, DUBBING (►)
4-6	47677500	Knob, DUBBING (2x ►)
4-7	27485100	Knob, B
4-8	47715900	Knob, AUTO FADER•INTRO SKIP•BLANK SERCH•RCPS
4-9	27484800	Knob, POWER
4-10	47678700	Cassette Holder Ass'y
4-11	47628810	Knob, EJECT
5	46549500	Push SW., SERIES•DUBBING etc.,
6	48080900	Push SW., DOLBY NR•REVERCE MODE•TIMER
7	27484000	Knob, DOLBY NR•TIMER
8	27484100	Knob, ⌐¯
9	27484200	Knob, ⌐¯¬
10	27484300	Knob, ▱
⚠ 11	46413900	Push SW., POWER (XX•UL•EU•UK•SS•SEV)
⚠	48065200	Push SW., POWER (CSA)
12	46706300	Jack, PHONES
13	48109200	Jack, MIC
14	47639310	Knob, MIC•REC LEVEL
15	48080700	20kΩ (A) V.R., MIC
16	48080800	20kΩ (A) V.R., REC LEVEL
17	46556400	Push SW., MANUAL/AUTO
18	47626900	Knob, MANUAL/AUTO
19	46899300	Tape Counter

7-2. Top View



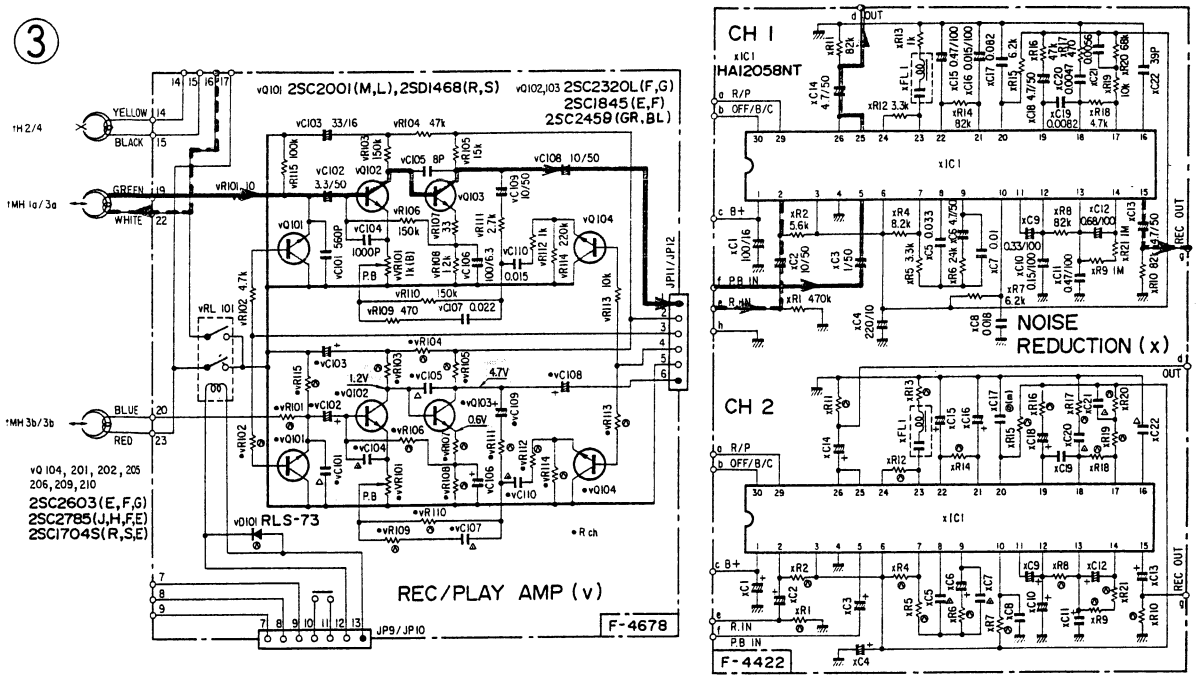
Parts List <Top View>

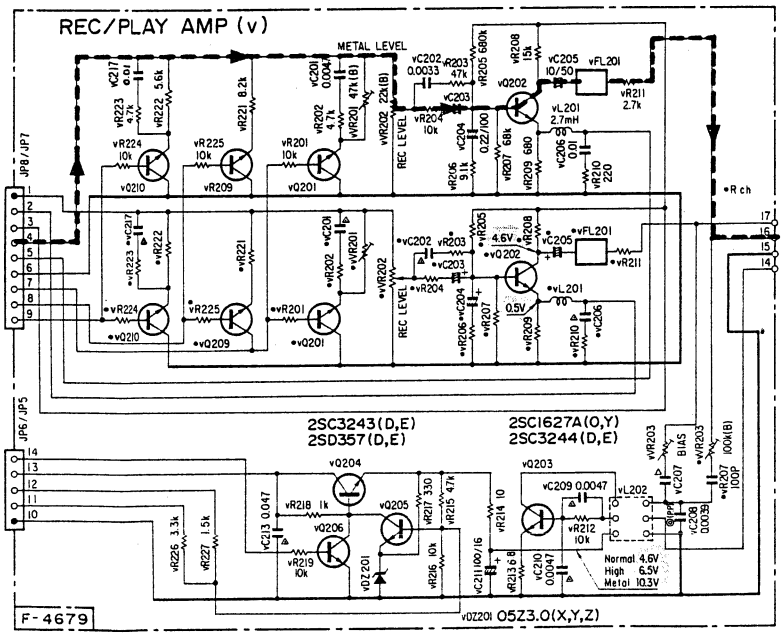
Parts No.	Stock No.	Description
1	46371500	4P Terminal Board, LINE IN/LINE OUT
⚠ 2	48069600	Voltage Selector (XX)
⚠	48111800	Voltage Selector (EU•UK•SEV)
⚠ 3	15017901	Power Transformer (XX)
⚠	15017902	Power Transformer (UL•CSA)
⚠	15017905	Power Transformer (EU•UK•SEV)
⚠ 4	38005700	Power Supply Cord (XX)
⚠	46407700	Power Supply Cord (UL•CSA)
⚠	38004500	Power Supply Cord (EU•SEV)
⚠	38004300	Power Supply Cord (UK)
⚠	48837700	Power Supply Cord (SS)
5	47157300	AC Cord Cover
6	47679110	Right Side Panel Ass'y
7	47113100	Joint Shaft
8	48126700	Damper Ass'y
9	47628500	Damper Joint Shaft
10	47608910	Left Side Panel Ass'y

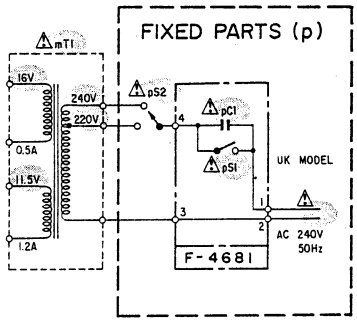
A | B | C | D

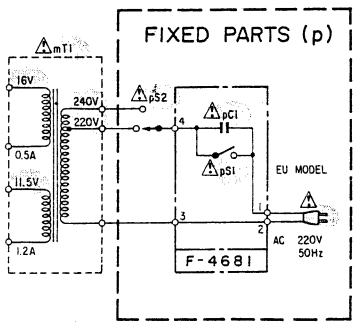
8. SCHEMATIC DIAGRAM

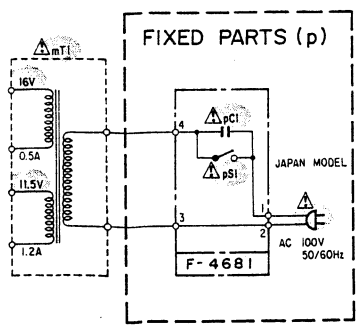
8-1. Recording/Playback Amp. & Noise Reduction Section

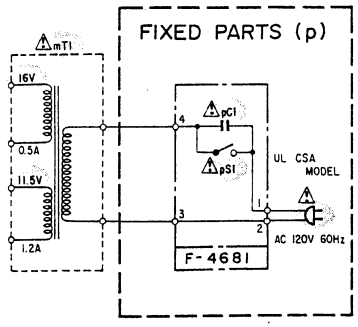












⚠ is Safety Part.
Use only replacement parts recommended by the manufacturer.

——— a Mecha. PLAY Signal Line

– – – – – a Mecha. REC Signal Line

* Design and specifications subject to change without notice for improvement.
* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

1 2 3 4 5

A	B	C	D	E	F	G	H

8-2. Amp. Section

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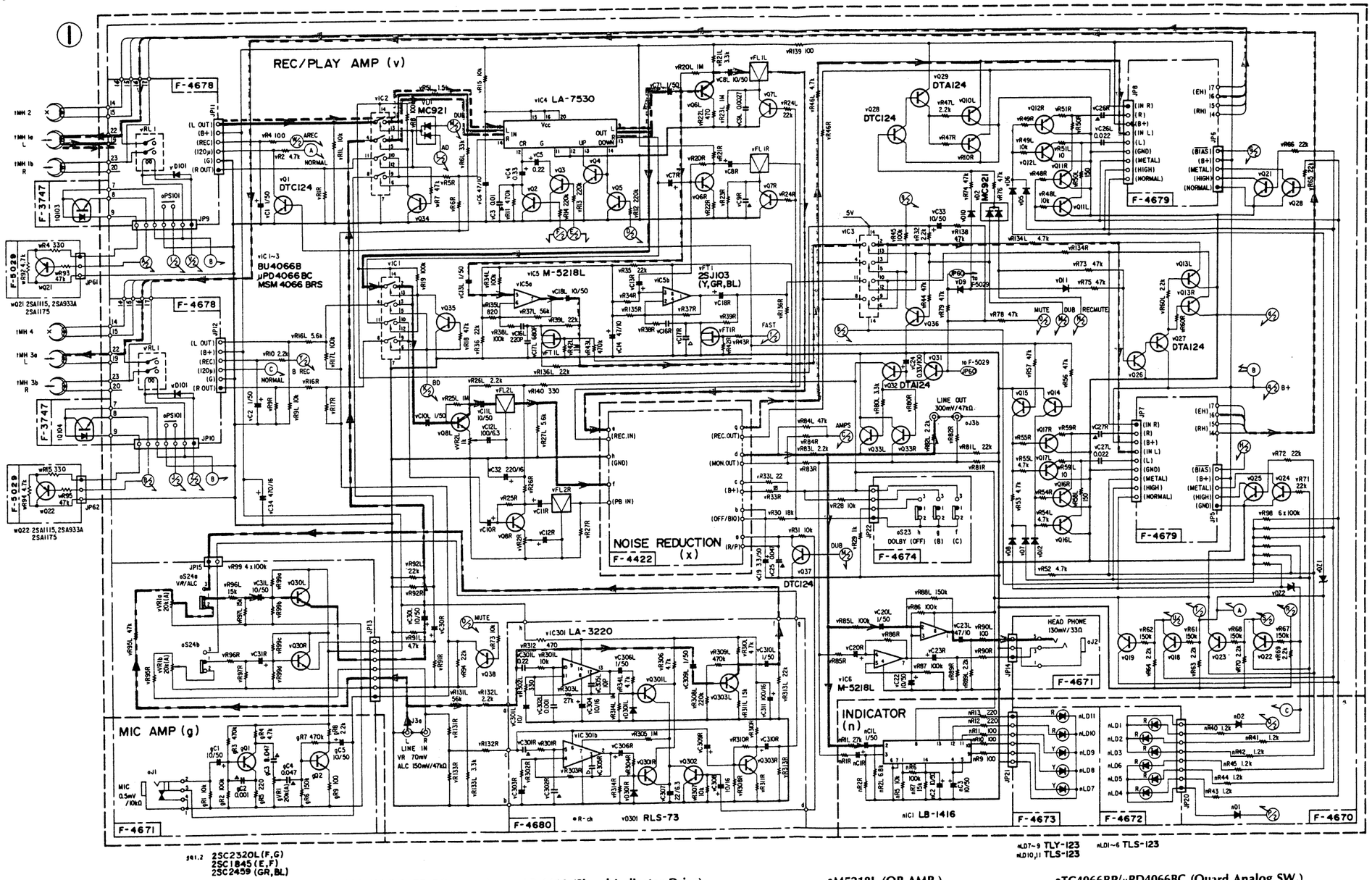


2SA934 2SD357
2SA952
2SA1283
2SC1627A
2SC1845
2SC2001
2SC3243
2SC3244
2SC2320

2SA1115
2SC2459
2SC2603

2SA933S
2SA1175
2SC1740S
2SC2785
2SD1468S
DTA124
DTC124

2SJ103

µPD4066BC
µPD4069C
BA612
BU4066B
BU4069UB
HA12058NT
HD14069
LA3220
LC7530
MB8841H-1357K
MB8421-170M
MSM4069UBRS

Dot or Slit or Line

LB1416

M5218L L78N05

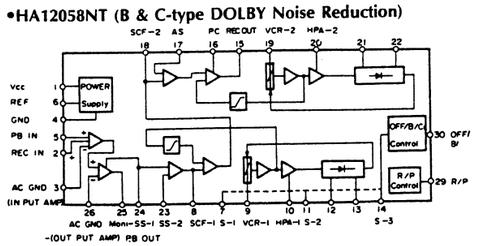
BA6208 MC921

DBB10-B

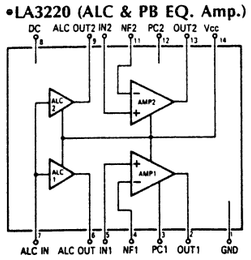
RB152

1S2473T77 05Z3.0 05Z5.1 05Z6.2 05Z9.1

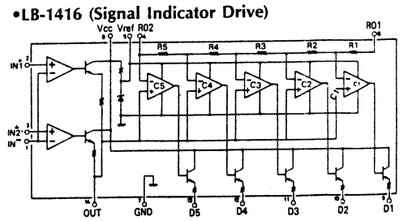
•HA12058NT (B & C-type DOLBY Noise Reduction)


SCF-2 AS PC REC OUT VCR-2 HPA-2
Vcc REF GND PB IN REC IN AC GND (IN PUT AMP)
POWER Supply
OFF/B/C Control
R/P Control
30 OFF/B/
29 R/P
AC GND Mon-SS-1 SS-2 SCF-1 S-1 VCR-1 HPA-1 S-2
S-3
-(OUT PUT AMP) PB OUT

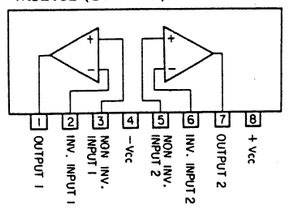
•LA3220 (ALC & PB EQ. Amp.)



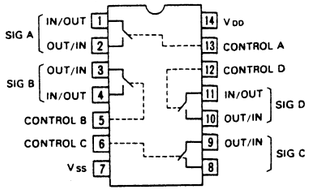
•LB-1416 (Signal Indicator Drive)



•M5218L (OP AMP.)



•TC4066BP/µPD4066BC (Quard Analog SW.)



a Mecha. PLAY Signal Line
a Mecha. REC Signal Line
DUBBING Signal Line

8-3. Control Section

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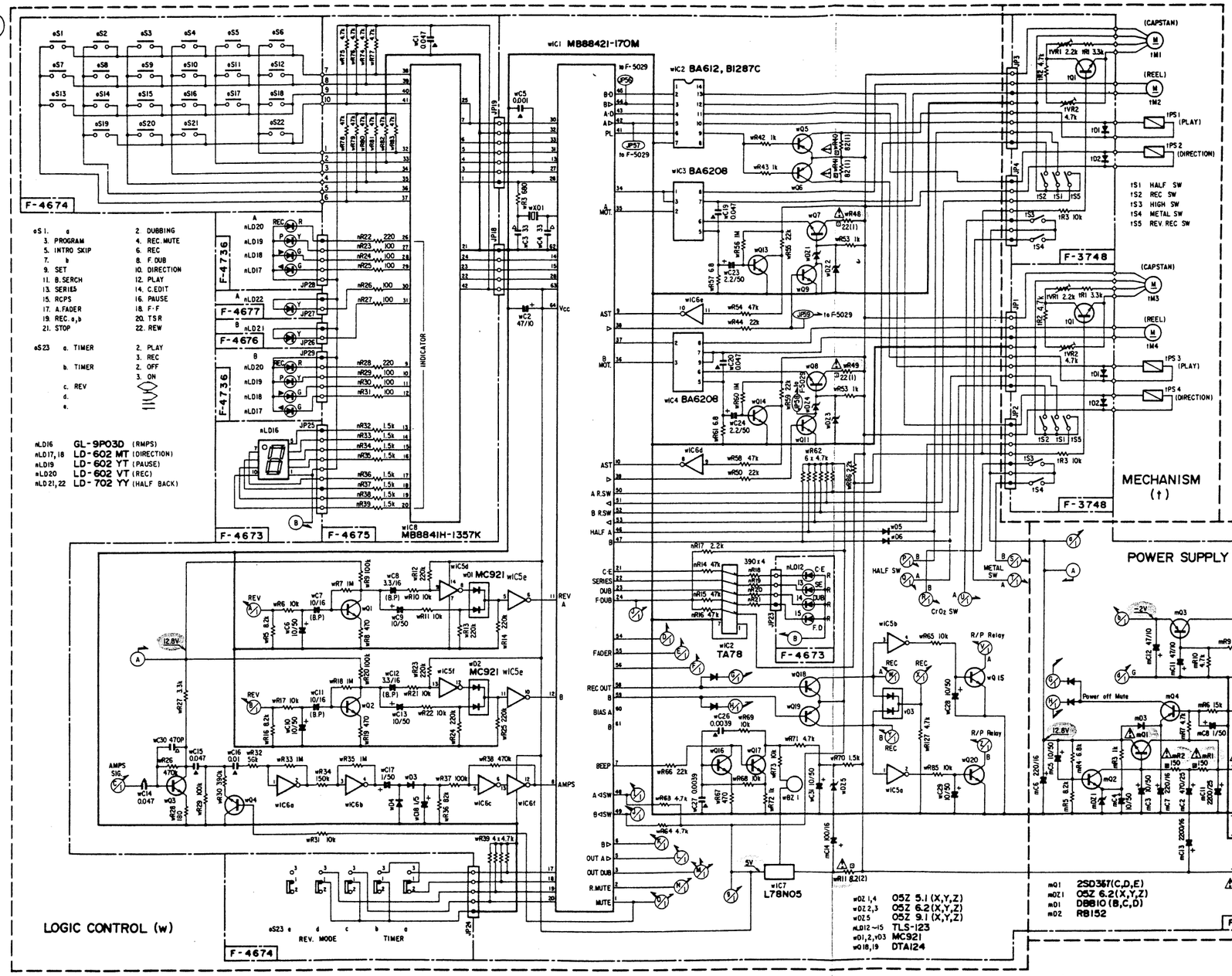
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



SYMBOL OF FUNCTION
(m) POWER SUPPLY (n) INDICATOR
(o) SELECTOR (q) MIC AMP
(p) FIXED PARTS
(t) MECHANISM
(v) REC/PLAY AMP
(w) LOGIC CONTROL
(x) NOISE REDUCTION

SYMBOL
●(PP) Polypropylene
△ Ceramic
▲ Barrie Layer Capacitor
▣ Non-Inflammable Resistor
● Chip Component (Cylindrical Type)
▨ Fusing Resistor
RESISTORS
Are in ohms, 1/4 Watts, ±5% Tolerance
Unless Otherwise Noted. k: kΩ, M: MΩ
CAPACITORS
Are in μF, Unless Otherwise Noted. p: pF

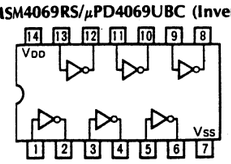
OPTIONAL USE OF SEMICONDUCTOR

PARTS NO	TYPE NO
mD3~5, †D1,2, vD5~12 wD3~6	IS2473, IS1588
mQ2, wQ2~8, 10~17,20 21, 24, 25, 31, 30, 33~36 38, 301~3 wQ1~4, 9~17,20	2SC2603(E,F,G) 2SC2785(J,H,F,E) 2SC1740S(R,S,E)
mQ3, 4, vQ18, 19, 22 23	2SA1115(E,F) 2SA1175(J,H,F,E) 2SA933S(R,S,E)
wQ5,6	2SA952(M,L), 2SA934(R,S)
†Q1	2SC2001(M,L), 2SD1468(R,S)
wQ7,8	2SC3243(D,E)
IC5,6	BU4069UB, HD14069UBP μPD4069UBC, MSM4069UBRS

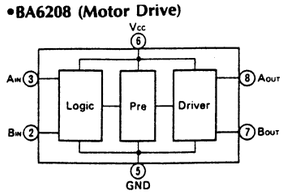
Each D.C Voltage shows the nominal value in volts at during recording
Electrolytic Capacitor: Capacitance(μF)/Volt(V)
⚠ is Safety Part.
Use only replacement parts recommended by the manufacturer.

2SA934 2SD357
2SA952
2SA1283
2SC1627A
2SC1845
2SC2001
2SC3243
2SC3244
2SC2320
2SA1115 2SC2459 2SC2603
2SA933S
2SA1175
2SC1740S
2SC2785
2SD1468S
DTA124
DTC124
2SJ103
μPD4066BC
μPD4069C
BA612
BU4066B
BU4069UB
HA12058NT
HD14069
LA3220
LC7530
MB8841H-1357K
M88421-170M
MSM4069UBRS
Dot or Slit or Line
LB1416
M5218L
L78N05
BA6208
MC921
DBB10-B
RB152
1S2473T77 05Z3.0 05Z5.1 05Z6.2 05Z9.1

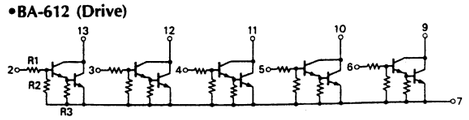
•MSM4069RS/μPD4069UBC (Inverter)



•BA6208 (Motor Drive)



•BA-612 (Drive)



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